



UNITED STATES PATENT AND TRADEMARK OFFICE

A

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/972,229 | 10/04/2001 | Susie J. Wee | HP-10016300 | 4644 |

7590 11/07/2005

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

SHIFERAW, ELENI A

ART UNIT

PAPER NUMBER

2136

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-------------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/972,229 | WEE ET AL. |
| | Examiner Eleni A. Shiferaw | Art Unit 2136 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 22 August 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-63 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ . |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 22, 2005 has been entered.

2. Claims 1-63 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 10-19, 23-32, 36-39, and 40-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al. (Nakagawa, U.S. Patent No. 6,810,131) in view of Perlman et al. (Perlman, U.S. Patent No. 6,055,316).

As per claims 1, 14, 27, 40, 48, and 56 Nakagawa teaches a device/method for encoding and encrypting data, said device comprising:

a segmenter adapted to receive said data and segment at least a portion of said data into regions (Nakagawa Fig. 15 No. 1100 and 1200);

a scalable encoder coupled to said segmenter, said scalable encoder adapted to scalably encode at least one of said regions into scalably encoded data as blocks (Nakagawa Fig. 19, encoding side, element 6000) said blocks comprising a first block of scalably encoded data that when decoded reconstructs a first version of said original data, said blocks also comprising a second block of scalably encoded data that when decoded in combination with data from said first block reconstructs a second version of said original data (fig. 19, encoding side, element 6000/60001); and

an encrypter, said encrypter adapted to encrypt said scalably encoded data into encrypted scalably encoded data (Nakagawa Fig. 15 No. 1108, and col. 3 lines 44-48).

Nakagawa does not explicitly teach the encrypter is progressive encrypter.

Perlman teaches progressively encrypting said first block to generate a first progressively encrypted scalable encoded block (fig. 2 element 30(i-1)); and progressively encrypting said second block in combination with said first block or in combination with said first progressively encrypted scalably encoded block to generate a second progressively encrypted scalably encoded block (Fig. 2 element 30(i) & 30(I+1) and col. 6 lines 26-60).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Perlman within the system of Nakagawa because it would allow to provide at least some content to everyone, even if users are not going to pay the full version. This way, the content provider can send low quality “previews” to a larger viewing audience (see Perlman col. 1 lines 66-col. 2 lines 12). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Perlman within the system of Nakagawa to progressively encrypt

portions of the scalably encoded data and generate progressively encrypted scalably encoded data because it would allow data to be streamed to heterogeneous client receiving nodes that may have different display, power, communication and computational capabilities and characteristics.

As per claims 2, 15, and 28, both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teaches the device/method wherein said device is coupled to a packetizer, wherein said packetizer is adapted to receive said progressively encrypted scalably encoded data in real time as said progressively encrypted scalably encoded data are output from said progressive encrypter (Fig. 15 No. 1302).

As per claims 3, 16, and 29, both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teaches the device/method comprising: a storage unit coupled to said progressive encrypter, said storage unit adapted to store said progressively encrypted scalably encoded data (Nakagawa Fig. 15 No. 1105, and see also Perlman col. 12 lines 21-24).

As per claims 4, 17, and 30, both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teaches the device/method wherein said device is coupled to a packetizer, wherein said packetizer is adapted to receive at least a portion of said progressively encrypted scalably encoded data stored in said storage unit (Nakagawa Fig. 15 No. 1302).

As per claims 5, 18, 31, 46, 54, and 62, both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teaches the device/method wherein said data are selected from the group consisting of: video data, audio data, image data, graphic data, and web page data (Nakagawa Col. 2 lines 42-45).

As per claims 6, 19, and 32, both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teaches the device/method wherein said segmenter is adapted to receive prediction error video data (Nakagawa Col. 17 lines 61-66).

As per claims 10, 23, and 36, both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teaches the device/method comprising: a video prediction unit coupled to said segmenter, said video prediction unit adapted to generate prediction error video data (Nakagawa Col. 17lines 61-66).

As per claims 11, 24, 37, 42, 50, and 58 both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teaches the device/method wherein said scalable encoder is adapted to encode said at least one of said regions into scalable data and into header data, wherein said header data provide information corresponding to said scalable data (Nakagawa Col. 16 lines 17-27).

As per claims 12 and 25, 38, 43, 51, and 59 both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teaches the device/method wherein said

progressive encrypter is adapted to encrypt said header data (Nakagawa Col. 16 lines 17-27).

As per claims 13, 26, and 39 both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teaches the device/method wherein said header data comprise information allowing a transcoder to transcode said progressively encrypted scalably encoded data without decrypting and decoding said progressively encrypted scalably encoded data (Nakagawa Col. 16 lines 17-27).

As per claims 41, 49, and 57, both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa discloses the method for securely and scalably encoding data further comprising packetizing said progressively encrypted scalable data (fig. 15 element 1302).

As per claims 44, 52, and 60, both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teach the method for securely and scalably encoding data further comprising packetizing said progressively encrypted scalable data and said encrypted header data (col. 17 lines 17-22).

As per claims 45, 53, and 61, both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa teach the method for securely and scalably encoding data further comprising packetizing said progressively encrypted scalable data and said header data (col. 17 lines 17-22).

As per claims 47, 55, and 63, both Nakagawa and Perlman teach all the subject matter as described above. In addition Nakagawa discloses the method for securely and scalably encoding data further comprising segmenting said data into corresponding regions (fig. 15 element 1100 and 1200).

5. Claims 7-9, 20-22, and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al. (Nakagawa Patent No.: US 6,810,131 B2) in view of Perlman et al. (Perlman Patent Number 6,055,316), and in further view of Van der Auwera et al. (Van Patent No.: US 6,532,265 B1).

As per claims 7-9, 20-22, and 33-35 both Nakagawa and Perlman teach all the subject matter as described above. Nakagawa and Perlman do not explicitly teach segmenting said data into rectangular regions, non-rectangular regions, and overlapping regions.

Van teaches segmenting said data into corresponding rectangular regions, non-rectangular regions, and overlapping regions (Van col. 2 lines 20-28).

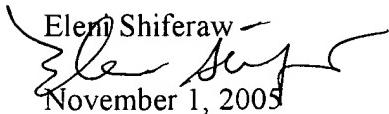
It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine segmenting the data into rectangular, non-rectangular, and overlapping regions, as taught by Van to the system of Nakagawa and Perlman. It would have been obvious for such modifications because the segments being divided into different regions allows smaller segmenting values for easier encoding and the realization of a real-time system.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eleni Shiferaw

November 1, 2005


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100